

Solar Activity over the Last Four Billion Years

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The action of dynamo generates magnetic field in the solar interior. This field then travels through the convective zone and emerges on the solar surface, leading to a various manifestations of solar magnetic activity. One of the most appealing among them is the variations of solar brightness. We review recent theoretical progress in understanding solar variability on timescale from hours to the millennia. We utilize recent observations of Sun-like stars younger than the Sun to reconstruct solar activity and brightness variability over last four billion years.